

CLAIMS:

1. A system comprising
a bi-stable display (RD),
an addressing means (AD) for locally addressing the bi-stable display (RD),
and
5 a means for moving (MO) the addressing means (AD) and the bi-stable display (RD) with respect to each other.
2. A system as claimed in claim 1, wherein the bi-stable display (RD) is rollable, and wherein the system further comprises a means for holding (HO) the rollable bi-stable display (RD) in a rolled up position, and for allowing the rollable bi-stable display (RD) to be
10 unrolled, and wherein the addressing means (AD) is arranged for locally addressing the rollable bi-stable display (RD) while being rolled in and/or out the means for holding (HO).
3. A system as claimed in claim 1, wherein the addressing means (AD) is a unit
15 mechanically separated from the bi-stable display (RD).
4. A system as claimed in claim 1 or 2, wherein the addressing means (AD) is mechanically fixed to the means for holding (HO).
- 20 5. A system as claimed in claim 1, wherein the addressing means (AD) is movably fixed to the means for holding (HO) for providing at least two different positions with respect to the means for holding (HO).
- 25 6. A system as claimed in claim 1, wherein the addressing means (AD) is arranged in a first position with respect to the means for holding (HO) when said display (RD) is passing the addressing means (AD) for a first time, and wherein the addressing means (AD) is arranged in a second position with respect to the means for holding (HO) when said display (RD) is passing the addressing means (AD) for a second time, the second position having an offset with respect to the first position in a direction of movement of said

display (RD) and the addressing means (AD) with respect to each other, or in a direction perpendicular to the movement of said display (RD) and the addressing means (AD) with respect to each other.

5 7. A system as claimed in claim 1, wherein the addressing means (AD) comprises a light source (LS), and wherein the bi-stable display (RD) comprises a photoconductive layer (PL) and a display substance (DL) being sandwiched between a first conductive layer (E1) and a second conductive layer (E2), the first conductive layer (E1) being directed towards the light source (LS) and being optically transparent for passing the
10 light (AL) of the light source (LS) to the photoconductive layer (PL).

8. A system as claimed in claim 7, wherein the addressing means (AD) comprises at least one line of light sources (LS) extending substantially perpendicular with respect to a direction of movement (DM) of the bi-stable display (RD) and the addressing
15 means (AD) with respect to each other.

9. A system as claimed in claim 1, wherein the bi-stable display (RD) comprises a display substance (DL) sandwiched between a protective insulating foil (IF) and a conductive layer (CL), the addressing means (AD) comprises a first electrode (AD1) being
20 directed towards the bi-stable display (RD) but not making contact with the bi-stable display (RD), and a second electrode (AD2, AD3) positioned in-between the first electrode (AD1) and the protective foil (PF), the system further comprises a driver (DR) for generating a voltage (HV) between the first electrode (AD1) and the second electrode (AD2, AD3) to obtain an electron beam, the second electrode (AD2, AD3) having a hole for allowing the
25 electron beam to pass towards the display substance (DL) of the bi-stable display (RD) when said display (RD) and said addressing means are being moved with respect to each other.

10. A system as claimed in claim 9, wherein the addressing means (AD) comprises
30 at least one line of first electrodes (AD1) extending substantially perpendicular with respect to a direction of movement (DM) of the bi-stable display (RD) with respect to the addressing means (AD), and ending at a predetermined distance (PD) with respect to a surface of the bi-stable display (RD), and wherein the system further comprises a driver (DR)

for generating voltages (HV) being supplied between the line of first electrodes (AD1) and a corresponding line of second electrodes to supply electrons to at least one line of pixels (P).

11. A system as claimed in claim 1, wherein the bi-stable display (RD) comprises
5 a display substance (DL) sandwiched between a protective insulating foil (IF) and a
conductive layer (CL), the means for addressing (AD) comprises a mechanical slider (MS)
making contact with the protective insulating foil (IF), and the system further comprises a
driver (DR1) for generating a voltage (VD) between the mechanical slider (MS) and the
conductive layer (CL).
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12. A system as claimed in claim 11, wherein the means for addressing (AD)
comprises at least one line of mechanical sliders (MS) extending substantially perpendicular
with respect to a direction of movement (DM) of the bi-stable display (RD) with respect to
the addressing means (AD), and making contact with the protective insulating foil (IF), and
15 wherein the system further comprises a driver (DR1) for generating voltages (VD) between
the mechanical sliders (MS) and the conductive layer (CL).
13. A system as claimed in claim 1, wherein the system further comprises
means (PM; LED, DET, AM) for determining a position of the bi-stable
20 display (RD) with respect to the addressing means (AD), and
synchronizing means (SYN) for synchronizing the addressing means (AD) to
address pixels (P) of the bi-stable display (RD) based on the position determined.
14. A system as claimed in claim 2, wherein the system further comprises
25 means (PM; LED, DET, AM) for determining a position of the rollable bi-
stable display (RD) while being rolled in or out, and
synchronizing means (SYN) for synchronizing the addressing means (AD) to
address pixels (P) of the rollable bi-stable display (RD) based on the position determined.
- 30 15. A system as claimed in claim 14, wherein the means (PM; LED, DET, AM)
for determining the position comprise a potentiometer (PM) coupled to an axis (AX) around
which the rollable bi-stable display (RD) is rolled up when in a rolled up state, a resistance of
the potentiometer (PM) indicating an amount the rollable bi-stable display (RD) is rolled in
or out.

16. A system as claimed in claim 13, wherein the means (PM; LED, DET, AM) for determining the position comprises markers (MA) on or coupled to the bi-stable display (RD) and a detector (DET) for detecting the markers (MA).
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17. A system as claimed in claim 16, wherein the means (PM; LED, DET, AM) for determining the position further comprises a light emitting device (LED), and wherein the detector (DET) comprises a light sensitive element, the markers (MA) being areas with an optical behavior different than that of surrounding areas, the light emitting device (LED) and
- 10 the light sensitive element being positioned with respect to the markers (MA) to enable detection of the markers (MA).
18. A system as claimed in claim 13, wherein the detector (DET) comprises an optical movement detector.
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19. A system as claimed in claim 7, wherein the display substance is an electrophoretic material (EF) or cholesteric texture liquid crystal material.
20. A method of addressing a bi-stable display (RD), the method comprising
- 20 locally addressing (AD) the bi-stable display (RD), and
- moving (DM) the addressing means (AD) and the bi-stable display (RD) with respect to each other.
21. A method of addressing a bi-stable display (RD) as claimed in claim 20, the
- 25 method comprising unrolling the bi-stable display (RD), and the locally addressing (AD) is performed during rolling in or out the bi-stable display (RD).